CITY OF NOVI CITY COUNCIL OCTOBER 25, 2021



SUBJECT: Approval of an annual maintenance contract with ICS Integration Services LLC for assistance with the operation and maintenance of the City's water and sewer SCADA system, in the estimated annual amount of \$43,650. The contract term is three years.

SUBMITTING DEPARTMENT: Department of Public Works, Water & Sewer Division

EXPENDITURE REQUIRED	\$ 43,650
AMOUNT BUDGETED	\$ 50,000
APPROPRIATION REQUIRED	\$0
LINE ITEM NUMBER	592-592.00-941.501

BACKGROUND INFORMATION:

ICS Integration Services (ICS) was responsible for the initial development and implementation of the current Supervisory Control And Data Acquisition (SCADA) system utilized by the Water and Sewer Division to operate and monitor the City's water and sewer system. ICS continues to assist the Water and Sewer Division with the development of the system, while assisting with the operation and maintenance of the system. The proposed contract provides continued support of the SCADA system, including the following tasks:

- 24-hour on-call service for emergency situations (equipment or system malfunction).
- Calibration of all instrumentation (pressure transmitters, meters, etc.).
- Verification that the radio communication system is operating effectively.
- Completion of firmware updates for system components.
- SCADA system maintenance
 - Review of Ignition software diagnostic logs.
 - Install updates and patches for Windows System.
 - Install critical updates and security patches for Ignition software.
- As-needed assistance with the operation and continued improvement of the SCADA system.

The standard maintenance items listed above are included in the annual fee of \$37,000, with as-needed work completed per the hourly rates provided in ICS' proposal dated September 20, 2021. Staff assumes fifty hours of as-needed work requests, for an annual contract amount of \$43,650.

ICS was chosen for this maintenance contract because they designed and implemented the SCADA system, and are an integral part of the continued refinement and expansion of the system's operational controls. This contract would be effective for period of three years.

RECOMMENDED ACTION: Approval of an annual maintenance contract with ICS Integration Services LLC for assistance with the operation and maintenance of the City's water and sewer SCADA system, in the estimated annual amount of \$43,650. The contract term is three years.



1091 Centre Rd, Suite 190 Auburn Hills, MI 48326 Tel: (248) 765-5578 Fax: (734) 785-6025

9/20/2021 Ben Croy City of Novi

Subject: Annual maintenance contract for new instrumentation, PLC equipment and SCADA system.

Dear Mr. Ben Croy:

ICS Integration Services LLC is pleased to submit pricing for the above-mentioned project.

Scope of Services

ICS Integration Services will provide services as outlined in the Scope of Services section of this proposal.

Novi North PRV

- 1. Review radio / cellular system performance once every year.
- 2. Calibrate all instruments annually including pressure transmitters, verify mag meter signals where present, verify PRV position signals.
- 3. Verify PLC panel has no internal alarms or faults, verify Panelview has no alarms or faults where applicable. Verify heater operation where present. Check Batteries/UPS unit where applicable, general inspection of control panel components.
- 4. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 16 hours annually at all sites)

Grand River PRV

- 1. Review radio / cellular system performance once every year.
- 2. Calibrate all instruments annually including pressure transmitters, verify mag meter signals where present, verify PRV position signals.
- 3. Verify PLC panel has no internal alarms or faults, verify Panelview has no alarms or faults where applicable. Verify heater operation where present. Check Batteries/UPS unit where applicable, general inspection of control panel components.



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4. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 16 hours annually at all sites)

10 Mile PRV

- 1. Review radio / cellular system performance once every year.
- 2. Calibrate all instruments annually including pressure transmitters, verify mag meter signals where present, verify PRV position signals.
- 3. Verify PLC panel has no internal alarms or faults, verify Panelview has no alarms or faults where applicable. Verify heater operation where present. Check Batteries/UPS unit where applicable, general inspection of control panel components.
- 4. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 16 hours annually at all sites)

Island Lakes Booster Station

- 1. Review radio / cellular system performance once every year.
- 2. Calibrate all instruments annually including pressure transmitters, verify mag meter signals where present, verify PRV position signals.
- 3. Verify PLC panel has no internal alarms or faults, verify Panelview has no alarms or faults where applicable. Verify heater operation where present. Check Batteries/UPS unit where applicable, general inspection of control panel components.
- 4. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 16 hours annually at all sites)
- 5. Check VFD's, verify speed feedback and review error & alarm logs.

West Park Booster Station

- 1. Review radio / cellular system performance once every year.
- 2. Calibrate all instruments annually including pressure transmitters, verify mag meter signals where present, verify PRV position signals.
- 3. Verify PLC panel has no internal alarms or faults, verify Panelview has no alarms or faults where applicable. Verify heater operation where present. Check Batteries/UPS unit where applicable, general inspection of control panel components.
- 4. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 16 hours annually at all sites)
- 5. Check VFD's, verify speed feedback and review error & alarm logs.



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SCADA System

- 1. Review Ignition SCADA diagnostic logs for warnings and alarms monthly at a minimum.
- Install Windows system updates and patches in a controlled manner after reviewing Ignition technical support forums for any issues that may be caused by previous Microsoft patches. It is estimated we will run Windows updates on a 1– 2-month delay in order to give Inductive Automation a chance to vet and patch against Microsoft releases.
- 3. Install critical updates and security patches that may be released for Ignition. (Not to exceed 12 hours annually)
- 4. Provide annual total care contract on Ignition software and Kepware DNP3 Driver & redundancy module. This will entitle Novi to free upgrades of the software.
- 5. Apply critical firmware updates to Allen Bradley PLC's and Panelview's as required. (Not to exceed 8 hours annually)

Pricing

Annual Lump Sum:	\$37,000.00
Instrumentation and Control System Calibration and Testing for the sites listed above. Check for errors in the PLC and PanelView. PLC and PanelView firmware	
updates as necessary.	\$15,750.00
SCADA System Maintenance - This includes the SCADA System section above and this price includes yearly maintenance fees for Ignition and Kepware software. This does not cover any software other than the two listed above.	\$21,250.00

*This rate will be valid for a maximum of 3 years

TERMS

Our terms of payment are thirty (30) days net from date of invoice.



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SCHEDULE

Due to seasonal schedule demands, we will perform water system calibrations during the winter or early spring months.

<u>NOTES</u>

- 1. Insertion meter calibration is not included Discussions with Tim and Scott indicated that this would be scheduled on a T&M basis if required during the contract.
- 2. Any upgrades to the SCADA or PLC software that require design changes to maintain functionality are not included and will be charged at the hourly rate.
- 3. This proposal does not include any instrument or field work related to the sewage lift stations.
- 4. The intent of this proposal is to perform system monitoring, calibrations and annual inspections of the various systems mentioned. It does not include any repair or troubleshooting services that would be required based on the results of inspections. Any task not specifically mentioned above will be billed at an hourly rate of \$125.00 per hour worked. Year 2 rate will be \$129.00 per hour and year 3 rate will be \$133.00 per hour.

Thank you for the opportunity to quote these services. Should you have any questions regarding this proposal, please do not hesitate to call.

Sincerely,

Michael (Wegna

Michael Wegner President ICS Integration Services LLC Tel: (248) 765-5578 Fax: (734) 785-6025 mikewegner@icsintegrationllc.com